REMARKS

Claims 1-4 and 6-9 are pending in this application. By this Amendment, claims 1, 2 and 4 are amended. Support for the amendment is found at least in Applicants' Figs. 1 and 3. Claim 1 is amended for clarity and to incorporate the subject matter of claim 5. Claims 2 and 4 are amended for clarity. No new matter is added. Claim 5 is canceled without prejudice to, or disclaimer of, the subject matter recited therein. Reconsideration based on the amendments and following remarks is respectfully requested.

The Office Action rejects claims 1-3 under 35 U.S.C. §102(b) over JP 2001-274103 to Hiiragidaira; and rejects claims 4-9 under 35 U.S.C. §103(a) over Hiiragidaira. Because claim 1 is amended to incorporate the subject matter of claim 5, the §102(b) rejection is moot. The rejections are respectfully traversed.

Hiiraigidaira and Applicants' recited subject matter are non-analogous art because they are from different technical fields and address different problems. Hiiraigidaira discloses a gas shower member 1 with through-tubes 11 for processing the surface of a semiconductor (such as through chemical vapor deposition) to homogenize the reaction gas. In contrast, the "conductive film" recited in claim 1 is used for generating a plasma by silent discharge for purifying exhaust gas such as No_x, HC and CO while avoiding the local point discharge that can occur between a pair of electrodes.

Claim 1 recites, among other features, "at least one of the pair of electrodes including a ceramic plate having two major surfaces as a dielectric and a conductive film disposed inside the ceramic plate sandwiched between the two major surfaces and having a plurality of through-holes formed through the conductive film in its thickness direction." The Office Action asserts that Hiiragidaira discloses this feature.

Hiiragidaira, at paragraph [0041], discloses that the through-tubes 11 are hollow inside so that the reaction gas can pass through the through-tubes 11. The through-tubes 11

act as a thermal homogenizer of reactive gas on the surface of the semiconductor. Figs. 4-6 and 11 of Hiiragidaira, show that through-tubes 11 allow the reactive gas to flow through the gas shower object 1 from the top surface to the bottom surface.

In contrast, the through-holes of the conductive film recited in claim 1 do not pass through the ceramic base material, as shown in Applicants' Figs. 1 and 3. The recited through-holes need to surround a base material used as an insulating body for dielectric barrier discharge. A person of ordinary skill in the art would have understood at the time of filing this application that a pair of electrodes is used for silent discharge in this manner. For example, methods of forming the conductive film, as recited in claim 4, include the screen printing, calender rolling, spraying, chemical vapor deposition, or physical vapor deposition. Here, the film is formed on the ceramic plate and thus the area exposed by the through-hole of the conductive film is the base material of the ceramic plate. If instead these holes were actually tubes that extended through the ceramic plates such that the conductive material would not surround the base material, the system would not work for its intended purpose of dielectric barrier discharge. Thus, the rejection over Hiiragidaira is improper because the features disclosed by Hiiragidaira do not correspond to the claimed features.

Claim 1 also recites "a cross-sectional area of the through-holes have a diameter of 1 to 10 mm." The Office Action implicitly admits that Hiiragidaira does not anticipate this feature. In fact, Hiiragidaira would not have rendered obvious this feature. Specifically, Hiiragidaira fails to disclose a range and at best discloses an open-ended diameter of 0.01 mm "or more". Thus, Hiiragidaira fails to disclose and would not have rendered obvious with enabling specificity the claimed range of a "diameter of 1 to 10 mm." Further, the Office Action fails to identify a result effective variable relationship by which one of ordinary skill could optimize a range — notwithstanding the fact Hiiragidaira fails to disclose a range at all.

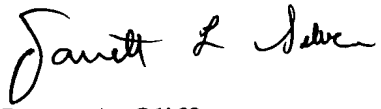
For at least the above reasons, Hiiragidaira does not teach or render obvious all of the features as recited in independent claim 1. Claims 2-3 and 6-9 are patentable for at least the respective dependence of these claims directly on an allowable base claim, as well as the separately allowable subject matter that these claims recite.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-4 and 6-9 under 35 U.S.C. §§102(b) and 103(a) as being anticipated by or unpatentable over Hiiragidaira are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-4 and 6-9 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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